Author Index

ADAIR, B.M. & FERGUSON, H.W. Isolation of infectious pancreatic necrosis (IPN) virus from non-salmonid fish, 69.

ANDERSEN, K., *see* EGIDIUS, E.

ANDREWS, C., CHUBB, J.C., COLES, T. & DEARSLEY, A. The occurrence of *Bothriocephalus acheilognathi* Yamaguti, 1934 (*B. gowkongensis*) (Cestoda: Pseudophyllidea) in the British Isles, 89.

AOKI, T., KITAO, T. & KAWANO, K. Changes in drug resistance of *Vibrio anguillarum* in cultured ayu, *Plecoglossus altivelis* Temminck and Schlegel, in Japan, 223.

ARMSTRONG, D., *see* ROALD, S.O.

BERTHEUSSEN, K., *see* BRAUN–NESJE, R.

BIAN, B.Z. & EGUSA, S. Histopathology of black gill disease caused by *Fusarium solani* (Martius) infection in the Kuruma prawn, *Penaeus japonicus* Bate, 195.

BOROS, G., *see* MOLNÁR, K.

BOWSER, P.R., *see* CRANDALL, T.A.

BRAUN-NESJE, R., BERTHEUSSEN, K., KAPLAN, G. & SELJELID, R. Salmonid macrophages: separation, *in vitro* culture and characterization, 141.

BUCKE, D., *see* HUDSON, E.B.; *see also* SEAGRAVE, C.P.

BULLOCK, A.M. & ROBERTS, R.J. Sunburn lesions in salmonid fry: a clinical and histological report, 271.

BULLOCK, A.M., *see* ROBERTSON, D.A.

BURKE, J. & RODGERS, L. Identification of pathogenic bacteria associated with the occurrence of 'red spot' in sea mullet, *Mugil cephalus* L., in south-eastern Queensland, 153.

BURKE, J.B. *see* RODGERS, L.J.

BURRESON, E.M. & SYPEK, J.P. *Cryptobia* sp. (Mastigophora: Kinetoplastida) from the gills of marine fishes in the Chesapeake Bay, 519.

BYLUND, G. & SUMARI, O. Laboratory tests with Droncit against diplostomiasis in rainbow trout, *Salmo gairdneri* Richardson, 259.

CARLTON, W.W., *see* HOOVER, D.M.

CHEUNG, P.J., NIGRELLI, R.F. & RUGGIERI, G.D. *Oodinium ocellatum* (Brown, 1931) (Dinoflagellata) in the kidney and other internal tissues of pork fish, *Anisotremus virginicus* (L.), 523.

CHUBB, J.C. *see* ANDREWS, C.

CLAUSEN, E., *see* EGIDIUS, E.

COLES, T., *see* ANDREWS, C.

COPLAND, J.W. The occurrence and distribution of *Myxidium giardi* Cépède, 1906 in wild and cultured European eels, *Anguilla anguilla* L., in England, 231.

CORNICK, J., *see* MORRISON, C.

CRANDALL, T.A. & BOWSER, P.R. A microsporidian infection in a natural population of mosquitofish, *Gambusia affinis* (Baird and Girard), 317.

DEARSLEY, A., *see* ANDREWS, C.

DESAUTELS, D., *see* PATERSON, W.D.

DORSON, M. & TORCHY, C. The influence of fish age and water temperature on mortalities of rainbow trout, *Salmo gairdneri* Richardson, caused by a European strain of infectious pancreatic necrosis virus, 213.

DYKOVÁ, I. & LOM, J. Fish coccidia: critical notes on life cycles, classification and pathogenicity, 487.

EDWARDS, R.L., *see* MURCHELANO, R.A.

EGIDIUS, E.C., ANDERSEN, K., CLAUSEN, E. & RAA, J. Cold-water vibriosis or 'Hitra disease' in Norwegian salmonid farming, 353.

EGIDIUS, E.C., JOHANNESSEN, J.V. & LANGE, E. Pseudobranchial tumours in Atlantic cod, *Gadus morhua* L., from the Barents Sea, 527.

EGUSA, S., *see* BIAN, B.Z.

EIRAS, J., *see* WOLF, K.

ELLIS, A.E., HASTINGS, T.S. & MUNRO, A.L.S. The role of *Aeromonas salmonicida* extracellular products in the pathology of furunculosis, 41.

EURELL, J.A. & HAENSLY, W.E. The effects of exposure to water-soluble fractions of crude oil on selected histochemical parameters of the liver of Atlantic croaker, *Micropogon undulatus* L., 187.

FENDRICK, J.L., *see* LEONG, J.C.

FERGUSON, H.W. The effects of water temperature on the development of proliferative kidney disease in rainbow trout, *Salmo gairdneri* Richardson, 175.

FERGUSON, H.W., *see* ADAIR, B.M.; *see also* HOOVER, D.M.

FIJAN, N. Professor Oleg N. Bauer, a biography, 443.

FORREST, A., *see* HUDSON, E.B.

GALHANO, M.H., *see* WOLF, K.

GEORGI, M.E., *see* RIIS, R.C.

GILLESPIE, J.H., *see* SWANSON, R.N.

GOPINATH, C., *see* MAJEED, S.K.

GRIZZLE, J.M., SCHWEDLER, T.E. & SCOTT, A.L. Papillomas of black bullheads, *Ictalurus melas* (Rafinesque), living in a chlorinated sewage pond, 345.

HAENSLY, W.E., *see* EURELL, J.A.

HASTINGS, T.S., *see* ELLIS, A.E.

HAWKINS, W.E., SOLANGI, M.A. & OVERSTREET, R.M. Ultrastructural effects of the coccidium, *Eimeria funduli* Duszynski, Solangi and Overstreet, 1979 on the liver of killifishes, 281.
HERMAN, R.L., *see* WOLF, K.
HINSMAN, E.J., *see* HOOVER, D.M.
HOERR, F.J., *see* HOOVER, D.M.
HOOVER, D.M., HOERR, F.J., CARLTON, W.W., HINSMAN, E.J. & FERGUSON, H.W. Enteric cryptosporidiosis in a naso tang, *Naso lituratus* Bloch, 425.
HUDSON, E.B., BUCKE, D. & FORREST, A. Isolation of infectious pancreatic necrosis virus from eels, *Anguilla anguilla* L., in the United Kingdom, 429.
HUDSON, E.B., *see* SEAGRAVE, C.P.

JOHANNESSEN, J.V., *see* EGIDIUS, E.C.
JOLLY, D.W., *see* MAJEED, S.K.

KAPLAN, G., *see* BRAUN-NESJE, R.
KAWANO, K., *see* AOKI, T.
KERÄNEN, A.-L., *see* VALTONEN, E.T.
KITAO, T., *see* AOKI, T.
KNITTEL, M.D. Susceptibility of steelhead trout *Salmo gairdneri* Richardson to redmouth infection *Yersinia ruckeri* following exposure to copper, 33.
KUBOTA, S.S., OCHIAI, T. & AKEDA, S. Ultrastructural study of inclusion-like bodies in hepatocytes of *Cyprinus carpio* L. induced by the herbicide Benthiocarb, 77.

LANDSVERK, T., *see* ROALD, S.O.
LANGE, E., *see* EGIDIUS, E.C.
LEATHERLAND, J.F. & SONSTEGARD, R.A. Thyroid dysfunction in Great Lakes coho salmon, *Oncorhynchus kisutch* (Walbaum): seasonal and interlake differences in serum T3 uptake and serum total and free T4 and T3 levels, 413.
LEE, A., *see* LEONG, J.C.
LEIBOVITZ, L., *see* RIIS, R.C.
LEONG, J.C., FENDRICK, J.L., YOUNGMAN, S. & LEE, A. Effect of polybrene on the infectivity of infectious haemopoietic necrosis virus in tissue culture, 335.
LOM, J., *see* DYKOVÁ, I.
LOPEZ, A. & RAIBAUT, A. Multiple cutaneous fibromas in a mullet, *Mugil cephalus cephalus* L., 169.

MACHADO CRUZ, J., *see* WOLF, K.
MACKENZIE, K. The effect of *Eimeria* sp. infection on the condition of blue whiting, *Micromesistius poutassou* (Risso), 473.
MAJEED, S.K., GOPINATH, C. & JOLLY, D.W. Pathology of spontaneous tuberculosis and pseudotuberculosis in fish, 507.
MARKIW, M.E., *see* WOLF, K.
MCGREGOR, D., *see* SEAGRAVE, C.P.
MINCHEW, C.D. *Unicauda magna* sp.n. (Protozoa: Myxozoa): a new myxozoan from the fin tissues of the fathead minnow, *Pimephales promelas* Rafinesque, 513.
MODIN, J.C. *Microsporidium rhabdophilia* n. sp. from rodlet cells of salmonid fishes, 203.
MOLNÁR, K. & BOROS, G. A light and electron microscopic study of the agent of carp mucophilosis, 325.
MORRISON, C.M., CORNICK, J., SHUM, G. & ZWICKER, B. Microbiology and histopathology of 'saddleback' disease of underyearling Atlantic salmon, *Salmo salar* L., 243.
MORRISON, C.M. & SPRAGUE, V. Electron microscopical study of a new genus and new species of microsporida in the gills of Atlantic cod *Gadus morhua* L., 15.
MORRISON, C.M. & SPRAGUE, V. Light and electron microscope study of microsporida in the gill of haddock, *Melanogrammus aeglefinus* (L.), 179.
MORRISON, C.M. & SPRAGUE, V. Microsporidian parasites in the gills of salmonid fishes, 371.
MUNRO, A.L.S., *see* ELLIS, A.E.
MURCHELANO, R.A. & EDWARDS, R.L. An erythrophoroma in ornamental carp, *Cyprinus carpio* L., 265.
MURPHY, T.M. The use of chemosterilants to lower the frequency of skin fungal infection amongst precocious male 1+ Atlantic salmon parr, *Salmo salar* L., 387.

NAIR, N.B., *see* RADHAKRISHNAN, S.
NICHOLSON, B.L., *see* RENO, P.W.
NIGRELLI, R.F., *see* CHEUNG, P.J.
NISHIMURA, T., *see* SANO, T.
NUSBAUM, K.E. & SHOTTS, E.B., JR. Action of selected antibiotics on four common bacteria associated with diseases of fish, 397.

OKAMOTO, N., *see* SANO, T.
OVERSTREET, R.M., *see* HAWKINS, W.E.

PAPERNA, I., SABNAI, I. & ZACHARY, A. Ultrastructural studies in piscine epitheliocystis: evidence for a pleomorphic developmental cycle, 459.
PATERSON, W.D., DESAUTELS, D. & WEBER, J.M. The immune response of Atlantic salmon, *Salmo salar* L., to the causative agent of bacterial kidney disease, *Renibacterium salmoninarum*, 99.

RAA, J., *see* EGIDIUS, E.C.
RADHAKRISHNAN, S. & NAIR, N.B. Histopathology of the infestation of *Diodon hystrix* L. by *Peniculisa wilsoni* Radhakrishnan (Copepoda: Lernaeoceridae), 83.
RAIBAUT, A., *see* LOPEZ, A.
RENO, P.W. & NICHOLSON, B.L. Ultrastructure and prevalence of viral erythrocytic necrosis (VEN) virus in Atlantic cod, *Gadus morhua* L., from the northern Atlantic Ocean, 361.

RIIS, R.C., GEORGI, M.E., LEIBOVITZ, L. & SMITH, J.S. Ocular metacercarial infection of the oyster toadfish, *Opsanus tau* (L.), 433.
ROALD, S.O., ARMSTRONG, D. & LANDSVERK, T. Histochemical, fluorescent and electron microscopical appearance of hepatocellular ceroidosis in the Atlantic salmon *Salmo salar* L., 1.
ROBERTS, R.J., *see* BULLOCK, A.M.; *see also* ROBERTSON, D.A.
ROBERTSON, D.A., ROBERTS, R.J. & BULLOCK, A.M. Pathogenesis and autoradiographic studies of the epidermis of salmonids infested with *Ichtyobodo necator* (Henneguy, 1883), 113.
RODGERS, L.J. & BURKE, J.B. Seasonal variation in the prevalence of 'red spot' disease in estuarine fish with particular reference to the sea mullet, *Mugil cephalus* L., 297.
RODGERS, L.J., *see* BURKE, J.B.
ROGERS, W.A., *see* THUNE, R.L.
RUGGIERI, G.D., *see* CHEUNG, P.J.

SABNAI, I., *see* PAPERNA, I.
SANO, T., OKAMOTO, N. & NISHIMURA, T. A new viral epizootic of *Anguilla japonica* Temminck and Schlegel, 127.
SCHWEDLER, T.E., *see* GRIZZLE, J.M.
SCOTT, A.L., *see* GRIZZLE, J.M.
SEAGRAVE, C.P., BUCKE, D., HUDSON, E.B. & MCGREGOR, D. A survey of the prevalence and distribution of proliferative kidney disease (PKD) in England and Wales, 437.
SELJELID, R., *see* BRAUN-NESJE, R.
SHARIFF, M. The histopathology of the eye of big head carp *Aristichthys noblis* (Richardson), infested with *Lernaea piscinae* Harding, 1950, 161.
SHOTTS, E.B., JR., *see* NUSBAUM, K.E.
SHUM, G., *see* MORRISON, C.
SMITH, C.E., *see* WOLF, K.
SMITH, J.S., *see* RIIS, R.C.
SOLANGI, M.A., *see* HAWKINS, W.E.
SOMMERVILLE, C. A comparative study of the tissue response to invasion and encystment by *Stephanochasmus baccatus* (Nicoll, 1907) (Digenea: Acanthocolpidae) in four species of flatfish, 53.
SONSTEGARD, R.A., *see* LEATHERLAND, J.F.
SPRAGUE, V., *see* MORRISON, C.M.
SUMARI, O., *see* BYLUND, G.
SWANSON, R.N. & GILLESPIE, J.H. An indirect fluorescent antibody test for the rapid detection of infectious pancreatic necrosis virus in tissues, 309.
SYPEK, J.P., *see* BURRESON, E.M.

TORCHY, C., *see* DORSON, M.
THUNE, R.L. & ROGERS, W.A. Gill lesions in bluegill, *Lepomis macrochirus* Rafinesque, infested with *Cleidodiscus robustus* Mueller, 1934 (Monogenea: Dactylogyridae), 277.

VALTONEN, E.T. & KERÄNEN, A.-L. Ichthyophthiriasis of Atlantic salmon, *Salmo salar* L., at the Montta Hatchery in northern Finland in 1978–1979, 405.

WEBER, J.M., *see* PATERSON, W.D.
WOLF, K., MARKIW, M.E., MACHADO CRUZ, J., GALHANO, M.H., EIRAS, J. & HERMAN, R.L. Non-myxosporidan blacktail of salmonids, 355.
WOLF, K. & SMITH, C.E. *Herpesvirus salmonis:* pathological changes in parenterally-infected rainbow trout, *Salmo gairdneri* Richardson, fry, 445.

YOUNGMAN, S., *see* LEONG, J.C.

ZACHARY, A., *see* PAPERNA, I.
ZWICKER, B., *see* MORRISON, C.

Subject Index

Aeromonas hydrophila, association with 'red spot' in sea mullet, 153.
Aeromonas hydrophila complex, action of antibiotics on, 397.
Aeromonas salmonicida: action of antibiotics on, 397;
extracellular products of, 41.
Age, relationship to occurrence of trophozoite of *Myxidium giardi* in European eels, 231.
Anguilla anguilla L.: isolation of IPNV from, 429;
occurrence and distribution of *Myxidium giardi* in, 231.
Anguilla japonica Temminck and Schlegel, a new viral epizootic of, 127.
Anisotremus virginicus (L.), *Oodinium ocellatum* in the tissues of, 523.
Antibiotics, action of on common bacteria of fishes, 397.
Aristichthys noblis (Richardson), infestation of the eye of with *Lernaea piscinae* Harding, 1950, 161.
Atlantic cod: microsporida in the gills of, 15;
pseudobranchial tumours in, 527; ultrastructure and prevalence of VEN virus in, 361.
Atlantic croaker, effects of water-soluble fractions of crude oil on the liver of, 187.
Atlantic salmon: cold-water vibriosis in, 353;
hepatocellular ceroidosis in, 1;
ichthyophthiriasis of, 397;
immune response to *Renibacterium salmoninarum* of, 99;
non-myxosporidan blacktail of, 355;
'saddleback' disease in, 243;
macrophages of, 141;
treatment of skin fungal infection in, 387.
Ayu, drug resistance of *Vibrio anguillarum* in, 223.

Bacteria, action of antibiotics on, 397.
Bacterial kidney disease, causative agent of in Atlantic salmon, 99.
Bauer, O.N., Professor, biography, 443.
Benthiocarb, induction of inclusion-like bodies in hepatocytes of carp by, 77.
Big head carp, infestation of the eye of with *Lernaea piscinae* Harding, 1950, 161.
Biography, Professor O.N. Bauer, 443.
Biology of the Cyclostomes, book review, 185.
Black bullheads, papillomas of, 345.
Black gill disease, in the Kuruma prawn, 195.
Blue whiting, effect of *Eimeria* sp. infection on the condition of, 473.
Bluegill, gill lesions of caused by infestation with *Cleidodiscus robustus* Mueller, 1934, 277.
Book reviews:
Biology of the Cyclostomes by M. W. Hardisty, 185.
Developments in Deep-Sea Biology by N. B. Marshall, 97.
Diseases of Fishes. Book 6. *Fungal Diseases of Fishes* by G. A. Neish & G. C. Hughes, 96.
Diseases of Marine Animals. Volume I. General aspects. Protozoa to Gastopoda. Edited by O. Kinne, 359.
Ecology of Freshwater Fish Production by S. D. Gerking, 96.
Fischkrankheiten by W. Schäperclaus, 95.
Salmon Ranching. Edited by J. E. Thorpe, 441.
The Student's Guide to Fish and Fish Inspection by R. G. Atkinson and N. F. Bailey, 185.
Tapeworms (*Cestoda, Ligulidae*) of the Fauna of the USSR by M. N. Dubinina, 533.
Bothriocephalus acheilognathi Yamaguti, 1934 (*B. gowkongensis*), occurrence of in the British Isles, 89.
Bream, IPN virus in, 69.
Brook trout, microsporidian parasites in the gills of, 371.
Brown trout, non-myxosporidan blacktail of, 355.

Carp: inclusion-like bodies in the hepatocytes of, 77;
study of the agent of mucophilosis in, 325.
Carp, mucophilosis, study of the agent of, 325.
Cellular immunity, methods for the study of in fish, 141.
Ceroid, accumulation of in hepatocytes, 1.
Chemosterilants, use of against skin fungal infection in Atlantic salmon parr, 387.
Chinook salmon, *Microsporidium rhabdophilia* n.sp. from rodlet cells of, 203.
Chlamydia-like organism, as the agent of mucophilosis in carp, 325.
Chloramphenicol, action of on bacteria associated with diseases in fish, 397.
Chlorinated sewage pond, papillomas of black bullheads living in, 345.
Cleidodiscus robustus, Mueller, 1934, infestation of in bluegill, 277.
Coho salmon: *Microsporidium rhabdophilia* n. sp. from rodlet cells of, 203;
thyroid dysfunction in, 413.
Cold-water vibriosis, in salmonids, 353.
Common dab, tissue response to cercarial invasion of, 53.
Common porcupine fish, infestation of by *Peniculisa wilsoni* Radhakrishnan, 83.
Copper, effect of on susceptibility of steelhead trout to redmouth infection, 33.
Cornea, infestation of in big head carp eye by *Lernaea piscinae* Harding, 1950, 161.
Crude oil, effect of water-soluble fractions of on the liver of Atlantic croaker, 187.

Cryptobia sp., from the gills of marine fishes, 519.
Cryptosporidia, in naso tang, 425.
Cyprinus carpio L.: the agent of mucophilosis in, 325;
erythrophoroma in, 265;
inclusion-like bodies in the hepatocytes of, 77.
Cyproterone acetate, use of against skin fungal infection in Atlantic salmon, 387.

Developments in Deep-Sea Biology, book review, 97.
Dicentrarchus labrax L., piscine epitheliocystis in, 459.
Diodon hystrix L., infestation of by *Peniculisa wilsoni* Radhakrishnan, 83.
Diplostomiasis, use of Droncit in rainbow trout as treatment of, 259.
Diplostomum spathaceum, treatment of with Droncit in rainbow trout, 259.
Discus fish, IPN virus in, 69.
Diseases of Fishes. Book 6. *Fungal Diseases of Fishes*, book review, 96.
Diseases of Marine Animals. Volume I. General Aspects. Protozoa to Gastropoda, book review, 359.
Dover sole, tissue response to cercarial invasion of, 53.
Droncit, laboratory tests with against diplostomiasis in rainbow trout, 259.
Drug resistance, of *Vibrio anguillarum* in ayu, 223.

Ecology of Freshwater Fish Production, book review, 96.
Eel, isolation of IPNV from, 429.
Eel virus european, infection in Japanese eels of, 127.
Eimeria sp.: classification of, 487;
effect of infection of blue whiting by, 473;
life cycle of, 487;
pathogenicity of, 487.
Eimeria funduli Duszynski, Solangi and Overstreet, 1979, effect on the liver of killifish of, 281.
Enteric cryptosporidiosis, in naso tang, 425.
Epidermis, infestation of with *Ichtyobodo necator* (Henneguy, 1883), 113.
Epieimeria n.g., establishment of, 487.
Erythromycin, action of on disease-associated bacteria in fish, 397.
Erythrophoroma, in ornamental carp, 265.
Estuarine fish, seasonal variation of prevalence of 'red spot' disease in, 297.
European eels, distribution and occurrence of *Myxidium giardi* in, 231.
Extracellular products, of *Aeromonas salmonicida*, role of in the pathology of furunculosis, 41.
Eye: infestation of with *Lernaea piscinae* Harding, 1950 in big head carp, 161;
treatment of fluke in with Droncit, 259.

Fathead minnow, *Unicauda magna* sp.n. from the fin tissues of, 513.
Fibromas, in mullet, 169.
Fin tissue, *Unicauda magna* sp.n. from, 513.
Fischkrankheiten, book review, 95.
Fish age, influence on rainbow trout mortalities from IPNV of, 213.
Fish coccidia, 487.
Flatfish, tissue response to *Stephanochasmus baccatus* (Nicoll, 1907) of, 53.
Flexibacter columnaris, as a cause of 'saddleback' disease 243.
Flexibacter columnaris-like organisms, action of antibiotics on, 397.
Fundulus grandis, effect of *Eimeria funduli* on the liver of, 281.
Fundulus similis, effect of *Eimeria funduli* on the liver of, 281.
Fungal infection, use of chemosterilants to treat against in the skin, 387.
Furpyrinol, action of on disease-associated bacteria in fish, 397.
Furunculosis, role of extracellular products in the pathology of, 41.
Fusarium solani (Martius), infection in the Kuruma prawn, 195.

Gadus morhua L.: microsporida in the gills of, 15;
pseudobranchial tumours in, 527;
ultrastructure and prevalence of VEN virus in, 361.
Gambusia affinis (Baird and Girard), a microsporidian infection in, 317.
Gills: *Cryptobia* sp. in, 519;
lesions of in bluegill infested with *Cleidodiscus robustus* Mueller, 1934, 277;
microsporidian cysts of in haddock, 179;
microsporidian infection in, 15;
microsporidian parasites in, 371.
Glugea sp., infection in mosquitofish, 317.
Glugea-type cyst, in Atlantic cod, 15.
Goldfish, IPN virus in, 69.

Haddock, microsporida in the gills of, 179.
Hepatocellular ceroidosis, in the Atlantic salmon, 1.
Hepatocytes, ultrastructure of inclusion-like bodies in, 77.
Herpesvirus salmonis, pathological changes in rainbow trout infected with, 445.
'Hitra disease', in salmonids, 353.
Hormone levels, seasonal and interlake variations of in Great Lakes coho salmon, 413.

Ichthyophthiriasis, of Atlantic salmon, 405.
Ichthyophthirius multifiliis, occurrence of in Atlantic salmon, 405.
Ichtyobodo necator (Henneguy, 1883), infestation in salmonids, 113.

Ictalurus melas (Rafinesque), papillomas of, 345.
Immune response: of Atlantic salmon to *Renibacterium salmoninarum*, 99;
of big head carp to infestation of the eye with *Lernaea piscinae* Harding, 1950, 161.
Inclusion-like bodies, ultrastructure of in hepatocytes, 77.
Indirect fluorescent antibody test, for the detection of IPNV in tissues, 309.
Infectious haemopoietic necrosis virus, effect of polybrene on, 335.
Infectious pancreatic necrosis virus: effect of fish age and water temperature on rainbow trout mortalities caused by, 213;
IFA test for the detection of in tissues, 309;
in non-salmonid fish, 69;
isolation of from eels, 429;
similarity to EVE virus, 127.
Inflammatory responses, of Kuruma prawn to black gill disease, 195.

Japanese eel, a new viral epizootic of, 127.

Kidney, infestation of by *Oodinium ocellatum* in the pork fish, 523.
Killifish, effect of *Eimeria funduli* on the liver of, 281.
Kuruma prawn, black gill disease in, 195.

Lepomis macrochirus Rafinesque, gill lesions of caused by *Cleiododiscus robustus* Mueller, 1934, 277.
Limanda limanda (L.), tissue response to cercarial invasion of, 53.
Liver: effect of *Eimeria funduli* on, 281;
effect of water-soluble fractions of crude oil on, 187;
lipoid degeneration of in fish, 1.
Liza aurata (Risso), piscine epitheliocystis in, 459.
Liza ramada (Risso), piscine epitheliocystis in, 459.
Loma branchialis (Nemeczek, 1911), new proposed name and genus for *Nosema branchiale* Nemeczek, 1911, 15.
Loma morhua n. g., n. sp., in Atlantic cod, 15.
Loma sp., in the gills of salmonid fishes, 371.

Melanogrammus aeglefinus (L.), microsporida in the gills of, 179.
Meningitis, as a feature of furunculosis, 41.
Methallibure, use of against skin fungal infection in Atlantic salmon, 387.
Micromesistius poutassou (Risso), effect of *Eimeria* sp. infection on the condition of, 473.
Micropogon undulatus L., effects of water-soluble crude oil fractions on the liver of, 187.
Microsporida: in the gills of Atlantic cod, 15;
in the gills of haddock, 179.
Microsporidian infection, in the mosquitofish, 317.
Microsporidian parasites, in the gills of salmonid fishes, 371.
Microsporidium rhabdophilia n. sp., from rodlet cells of salmonid fishes, 203.
Mosquitofish, a microsporidian infection in, 317.
Mucophilus cyprini, as the agent of carp mucophilosis, 325.
Mullet, multiple cutaneous fibromas in, 169.
Mugil cephalus L.: identification of the bacteria associated with 'red spot' disease in, 153;
piscine epitheliocystis in, 459;
seasonal variation of prevalence of 'red spot' disease in, 297.
Mugil cephalus cephalus L., multiple cutaneous fibromas in, 169.
Myxidium giardi Cépède, 1906, occurrence and distribution of in European eels, 231.
Myxoma, in the mullet, 169.
Myxosoma cerebralis infection, similarity to non-myxosporidan blacktail of salmonids, 355.

Naso lituratus Bloch, enteric cryptosporidiosis in, 425.
Naso tang, enteric cryptosporidiosis in, 425.
Non-myxosporidan blacktail, of salmonids, 355.
Nosema branchiale Nemeczek, 1911, proposed name and genus change of, 15.

Ocular metacercarial infection, of oyster toadfish, 433.
Oncorhynchus kisutch: Microsporidium rhabdophilia n. sp. from rodlet cells of, 203;
thyroid dysfunction in, 413.
Oncorhynchus nerka (Walbaum), immunity of to *Herpesvirus salmonis*, 445.
Oncorhynchus tshawytscha, *Microsporidium rhabdophilia* n. sp., from rodlet cells of, 203.
Oodinium ocellatum (Brown, 1931), in tissues of pork fish, 523.
Opsanus tau (L.), ocular metacercarial infection of, 433.
Ornamental carp, erythrophoroma in, 265.
Osteofibroma, in the mullet, 169.
Oxytetracycline, action of on disease-associated bacteria in fish, 397.
Oyster toadfish, ocular metacercarial infection of, 433.

Papillomas, in black bullheads, 345.
Penaeus japonicus Bate, black gill disease in, 195.
Peniculisa wilsoni Radhakrishnan, infestation of in common porcupine fish, 83.
Pimephales promelas Rafinesque, *Unicauda magna* sp. n. from the fin tissues of, 513.

Piscine epitheliocystis, evidence for a pleomorphic developmental cycle of, 459.
Plaice, tissue response to cercarial invasion of, 53.
Plaque formation, enhancement by IHNV of, 335.
Plecoglossus altivelis Temminck and Schlegel, drug resistance of *Vibrio anguillarum* in, 223.
Pleistophora salmonae Putz, Hoffman and Dunbar, transfer to genus *Loma* of, 371.
Pleuronectes platessa L., tissue response to cercarial invasion of, 53.
Polybrene, effect on infectivity of IHNV of, 335.
Pork fish, *Oodinium ocellatum* in the tissues of, 523.
Proliferative kidney disease: effect of water temperature on the development of in rainbow trout, 175;
prevalence and distribution of in England and Wales, 437.
Pseudobranchial tumours, in Atlantic cod, 527.
Pseudomonas fluorescens, action of antibiotics on, 397.
Pseudotuberculosis, pathology of in fish, 507.

Rainbow trout: cold-water vibriosis in, 353;
detection of IPNV in, 309;
effects of *Aeromonas salmonicida* extracellular products on, 41;
EVE infection of, 127;
Ichtyobodo necator (Henneguy, 1883) infestation in, 113;
influence of age and water temperature on mortalities caused by IPNV of, 213;
non-myxosporidan blacktail of, 355;
pathological changes caused by infestation of *Herpesvirus salmonis* in fry of, 445;
PKD in, 175, 437;
macrophages in, 141.
use of Droncit against diplostomiasis in, 259.
'Red spot': identification of the bacteria associated with in sea mullet, 153;
seasonal variation in estuarine fish of, 297.
Redmouth infection, susceptibility of steelhead trout to, 33.
Renibacterium salmoninarum, causative agent of BKD in Atlantic salmon, 99.
Rickettsia-like organism, as the agent of mucophilosis in carp, 325.
Rodlet cells, *Microsporidium rhabdophilia* n. sp. from, 203.

'Saddleback' disease, in Atlantic salmon, 243.
Salmo gairdneri Richardson: cold-water vibriosis in, 353;
detection of IPNV in, 309;
EVE infection of, 127;
Ichtyobodo necator (Henneguy, 1883) infestation in, 113;
infestation of by *Herpesvirus salmonis*, 445;
influence of age and water temperature on mortalities due to IPNV in, 213;
non-myxosporidan blacktail of, 355;
PKD in, 175, 437;
macrophages in, 141;
susceptibility to redmouth infection, 33;
use of Droncit against diplostomiasis in, 259;
Salmo gairdneri, *Microsporidium rhabdophilia* n. sp. from rodlet cells of, 203.
Salmo salar L.: cold-water vibriosis in, 353;
hepatocellular ceroidosis in, 1;
ichthyophthiriasis of, 405;
Ichtyobodo necator (Henneguy, 1883) infestation in, 113;
non-myxosporidan blacktail of, 355;
'saddleback' disease in, 243;
macrophages of, 141;
treatment of skin fungal infection in, 387.
Salmo trutta L., non-myxosporidan blacktail of, 355.
Salmon, *Ichtyobodo necator* (Henneguy, 1883) infestation in, 113.
Salmon Ranching, book review, 441.
Salmonid macrophages, 141.
Salmonids: cold-water vibriosis in, 353.
infestation with *Ichtyobodo necator* (Henneguy, 1883), 113;
microsporidian parasites in the gills of, 371.
Microsporidium rhabdophilia n. sp. from rodlet cells of, 203;
non-myxosporidan blacktail of, 355;
sunburn lesions in fry of, 271.
Salvelinus fontinalis (Mitchill), microsporidian parasites in the gills of, 371.
Scophthalmus maximus (L.), tissue response to cercarial invasion of, 53.
Sea mullet: identification of the pathogenic bacteria associated with 'red spot' in, 153;
seasonal variation in the prevalence of 'red spot' disease in, 297.
Seasonal variation, in the prevalence of 'red spot' disease, 297.
Skin fungal infection, use of chemosterilants against, 387.
Solea solea (L.), tissue response to cercarial invasion of, 53.
Sparus aurata L., pleomorphic developmental cycle of epitheliocystis organisms in, 459.
Steelhead rainbow trout, *Microsporidium rhabdophilia* n. sp. from rodlet cells of, 203.
Steelhead trout, susceptibility to redmouth invasion, 33.
Stephanochasmus baccatus (Nicoll, 1907), tissue response of flatfish to, 53.
The Student's Guide to Fish and Fish Inspection, book review, 185.
Sunburn lesions, in salmonid fry, 271.

Tapeworms (Cestoda: Ligulidae) of the Fauna of the USSR, book review, 533.
Thyroid dysfunction, in coho salmon, 413.
Tilapia aurea x nilotica, piscine epitheliocystis in, 459.

Tilapia mossambica (Peters), piscine epitheliocystis in, 459.
Tissue: effect of polybrene on the infectivity of IHNV on, 335;
IFA test for the detection of IPNV in, 309;
response to invasion by *Stephanochasmus baccatus* (Nicoll, 1907), 53.
Tuberculosis, pathology of in fish, 507.
Turbot, tissue response to cercarial invasion of, 53.

Unicauda magna sp.n., from the fin tissues of fathead minnow, 513.

Vibrio alginolyticus, association with 'red spot' disease in sea mullet, 153.
Vibrio anguillarum: association with 'red spot' disease in sea mullet, 153;
as the causative agent of 'red spot' epizootics, 297;
drug resistance of, 223.
Viral epizootic, in Japanese eel, 127.
Viral erythrocytic necrosis, in Atlantic cod, 361.
Viral kidney disease, in Japanese eels, 127.

Water temperature: effect of on PKD in rainbow trout, 175;
influence of on rainbow trout mortalities from IPNV, 213.

Xenomas: in the gills of Atlantic cod, 15;
induced by *Glugea* sp. in fish, 317.

Yersinia ruckeri, susceptibility of steelhead trout to infection by, 33.